State Water Resources Control Board
October 16, 2018 - Item #2

Update on Salton Sea Management Program
October 2018

Overview

- Environmental Conditions
- Order WR 2017-34
- SSMP Implementation and Coordination
- Schedule

Environmental Conditions

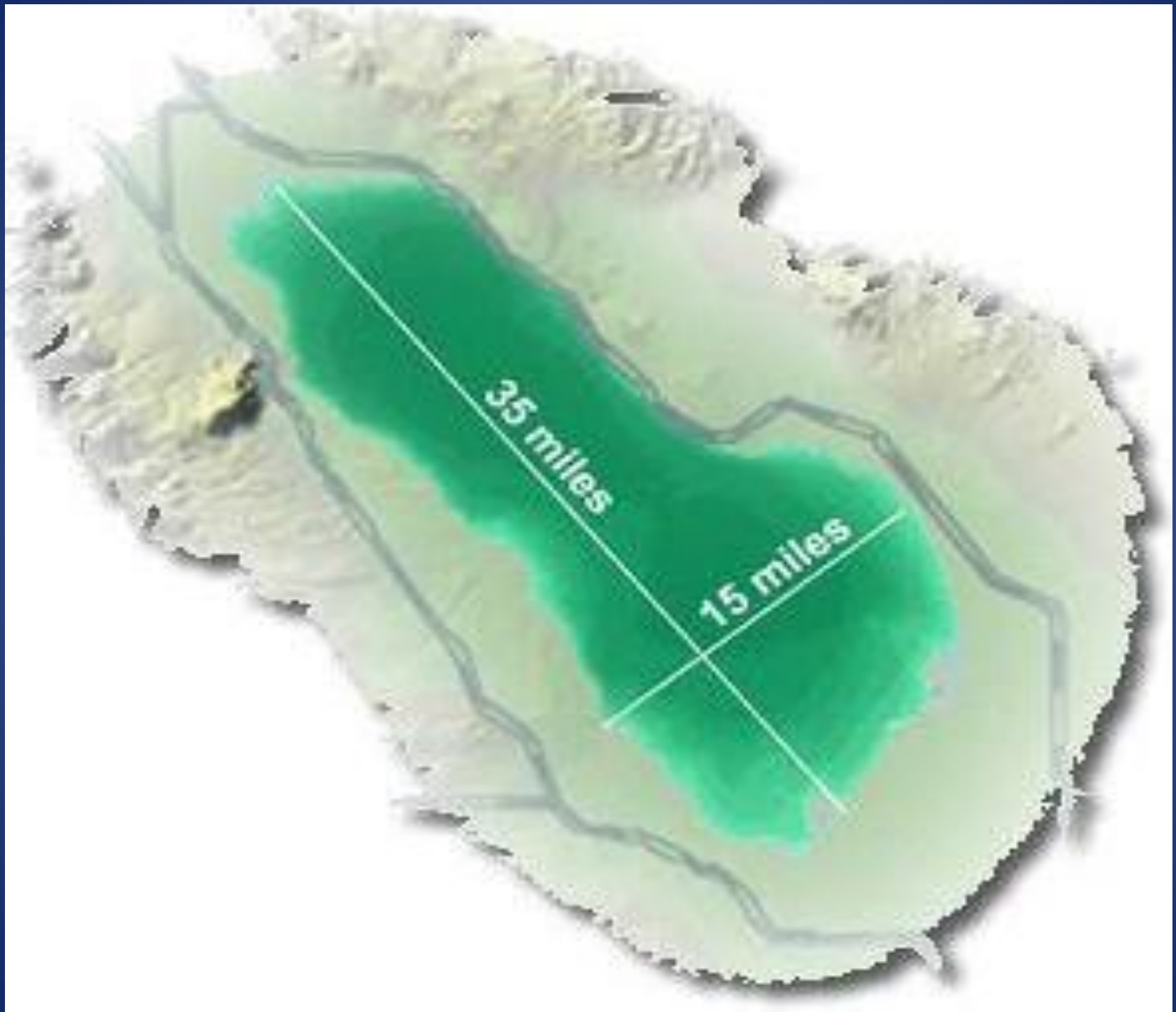
- Avian Monitoring
- Fishery Status
- Air Quality Monitoring
- Hydrology Inflow Modeling
- Salt Balance
- Water Quality Monitoring

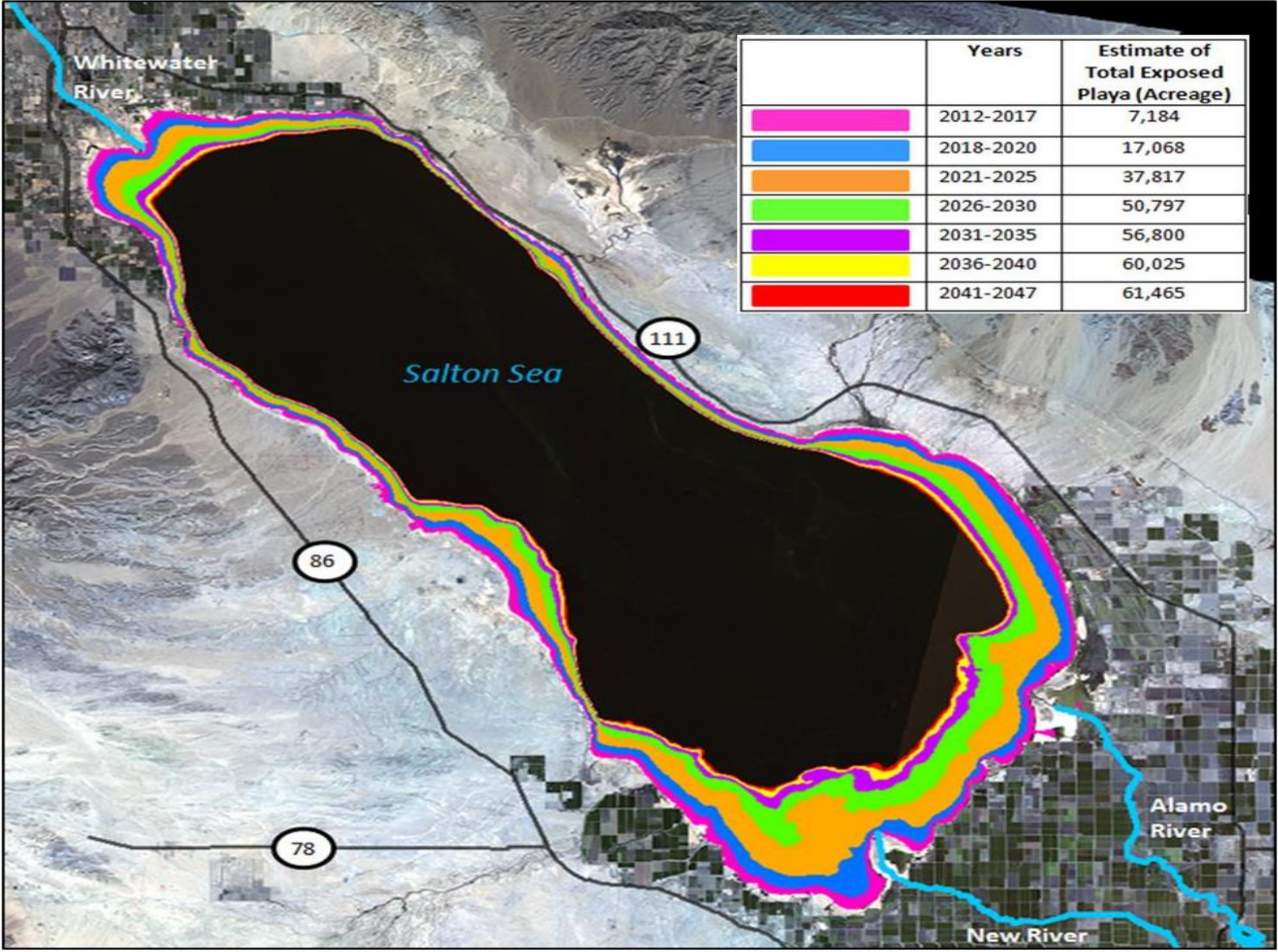
Avian Monitoring

- Establishing baseline through surveys
- Coordination with Audubon, CDFW
- Monitoring will be ongoing through the life of the SSMP
- General decrease, but fish-eating primarily

Fishery Status
CPUE-Catch Per Unit Effort

- Downward Trend
- Fish in all life stages still present
- Concentrated around rivers' mouths


35 miles
15 miles



	Years	Estimate of Total Exposed Playa (Acreage)
	2012-2017	7,184
	2018-2020	17,068
	2021-2025	37,817
	2026-2030	50,797
	2031-2035	56,800
	2036-2040	60,025
	2041-2047	61,465

Steady Decrease of Outflow

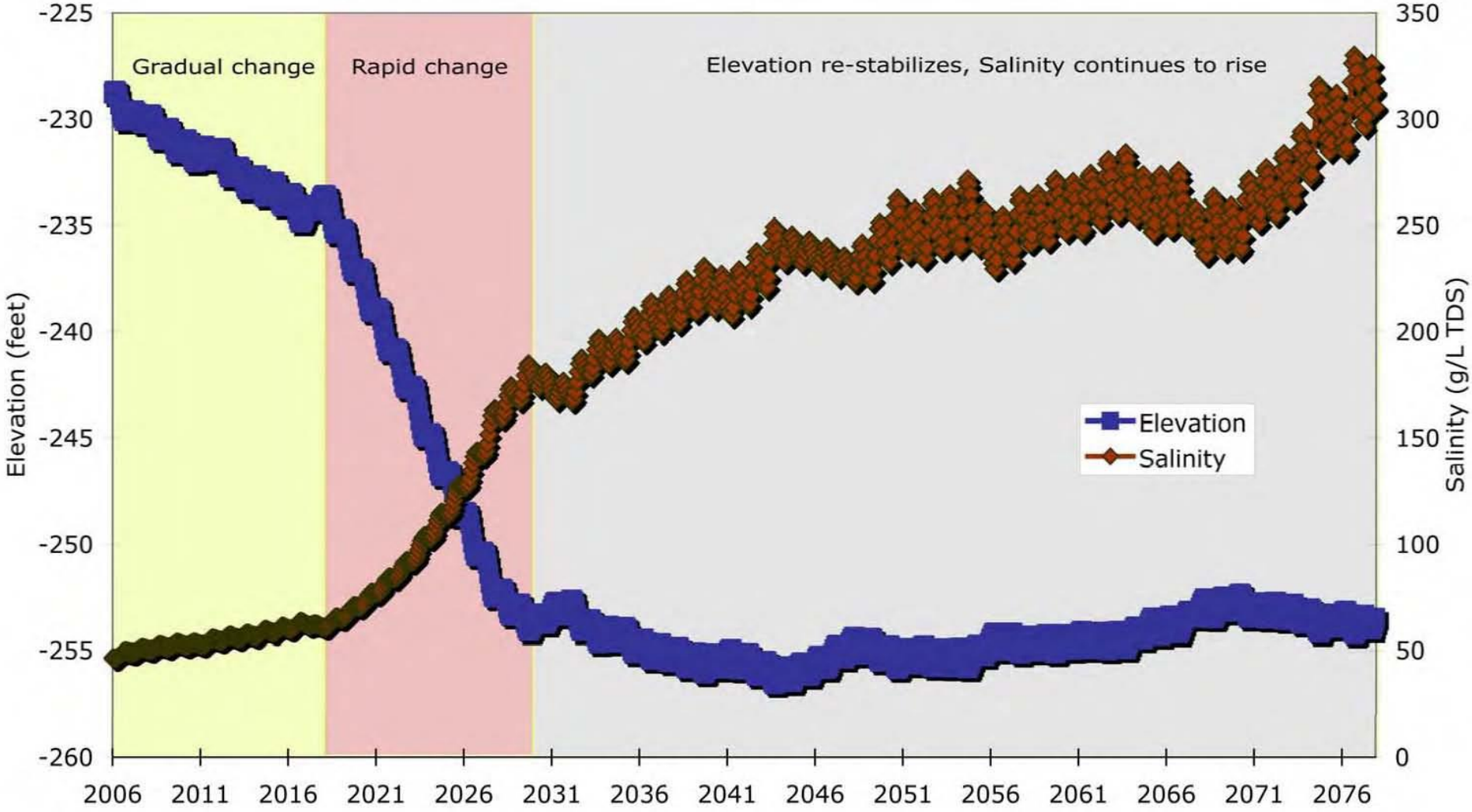
Calendar Year	Projected Flows (AF)	Exposed Playa (Acres)
2018	948,614	3,500
2019	915,228	7,700
2020	878,069	12,700
2021	862,093	18,300
2022	860,110	23,800
2023	855,364	29,100
2024	854,441	34,000
2025	852,735	38,300
2026	850,544	42,200
2027	855,247	45,500
2028	857,755	48,300

Salton Sea Projected Total Inflows (2017-2028) (AF). Imperial Irrigation District communication, 2015.

Salt Balance

	2014		2004-2014 Average	
	Load (metric ton/year)	Percent Total	Load (metric ton/year)	Percent Total
Alamo River	1,263,000	45%	1,518,000	47%
New River	1,159,000	41%	1,348,000	42%
Whitewater River	52,000	2%	58,000	2%
Direct Drains	321,000	11%	312,000	10%
Total	**2,795,000**		**3,236,000**	

Salton Sea Elevation and Salinity



Effect of No- Action on Salinity and Lake Elevation.

From Cohen and Hyun, 2006. Hazard: The Future of the Salton Sea with No Restoration Project

Air Quality


Field Scale Pilot Study
Field Scale Pilot Study
Vegetation Enhancement
Salton City Wash/Sand Barriers (Future Study)
Surface Roughening
Field Scale Pilot Study
Vegetation Enhancement (Future Study)
Vail Drain (Future Study)
Field Scale Pilot Study
Vegetation Enhancement and Surface Roughening
Legend
Heavily Vegetated Exposed Playa
Currently Exposed Playa
IID AQM Pilot Projects
CVWD Constructed Habitat Project
Red Hill Bay Habitat Project
State of CA - Saline Complex Habitat
Torres Martinez Wetlands
0 1 2 4 6 8
N

Air Quality

- **Obligations:**
  - QSA JPA
  - Contractual obligation under the QSA
- **Dust mitigation projects in coordination with partners**
  - Waterless and water dependent measures
  - Planning and Implementation
- **East and West shores of the Salton Sea in 2018**

Water Quality

- **New Committee formed – Chair by SSA**
- **CDFW to resume monitoring**
- **Water sampling done for Alcott and to be done for NRW**

Stipulated Water Board Order

	Annual	Cumulative
2018 acreage	500	500
2019 acreage	1300	1800
2020 acreage	1700	3500

Projected Recovery Plan		
2018 acreage	500 acres	Dust suppression projects
2019 acreage	1,000 acres	Dust suppression
2020/22 acreage	3 to 5,000 acres	North and SCH habitat

Dust Mitigation

- Contract in place with TetraTech, Inc.
- Target 500 to 1,000 acres in several locations
- Coordination with IID, ARB
- Primarily Tilling and Vegetation Enhancement

Funding Outlook

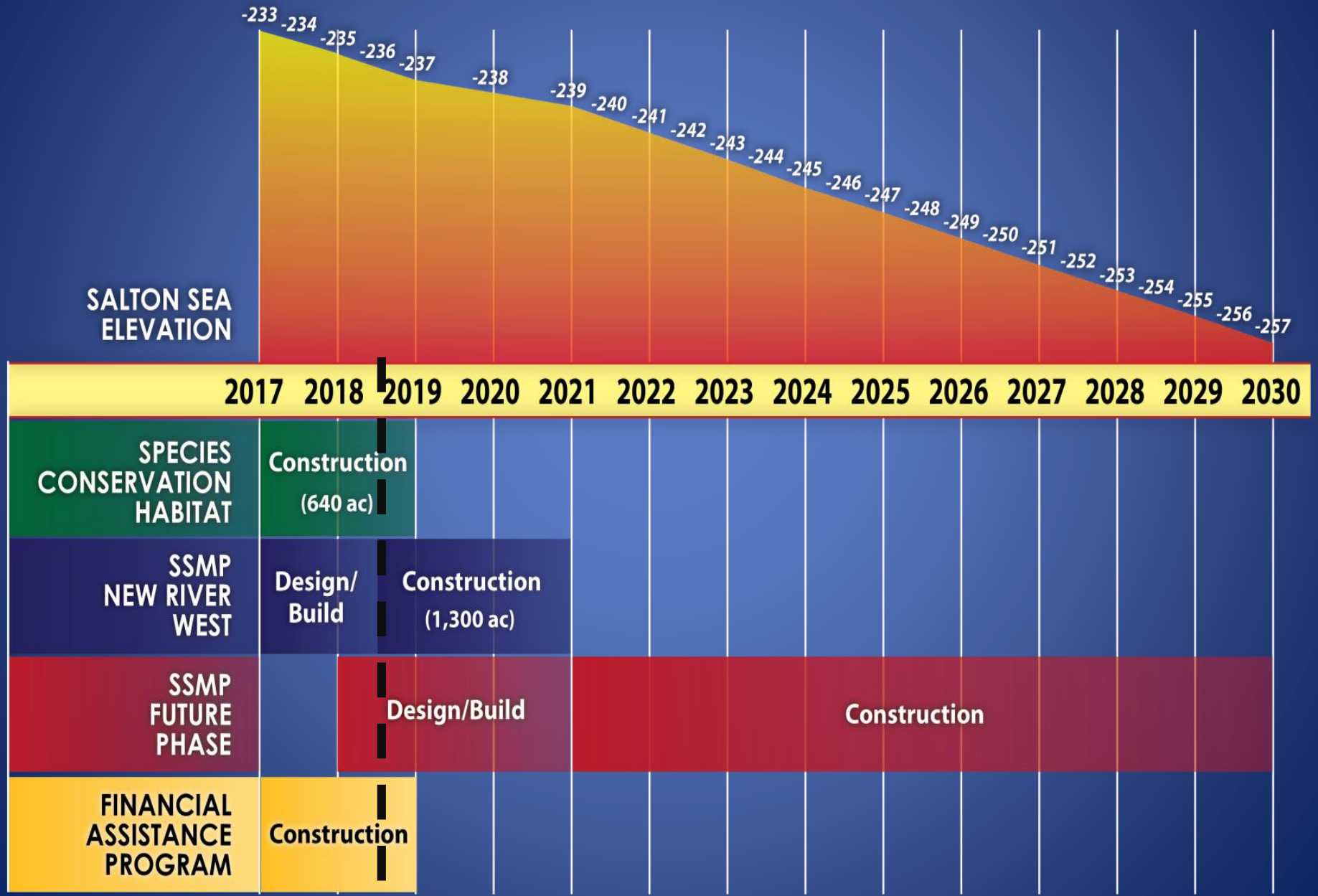
Proposition	Amount	Habitat	Dust suppression
Prop 84+50	$21M+$14M	640 acres[1]	0
Prop 1	$60M+$20M	1,500 acres	500 acres
Prop 68	$150M	5,000 acres	5,000 acres
Prop 3[2]	*$200M*	*9-10,000 acres*	*9 – 10,000 acres*
Total	**$465M**	**14,500 to 15,500**	**14,500 to 15,500**

[1]Not part of the WRO

[2] Not yet approved by voters

$5M spent from Prop 1 for State Ops (contractors and staff time)

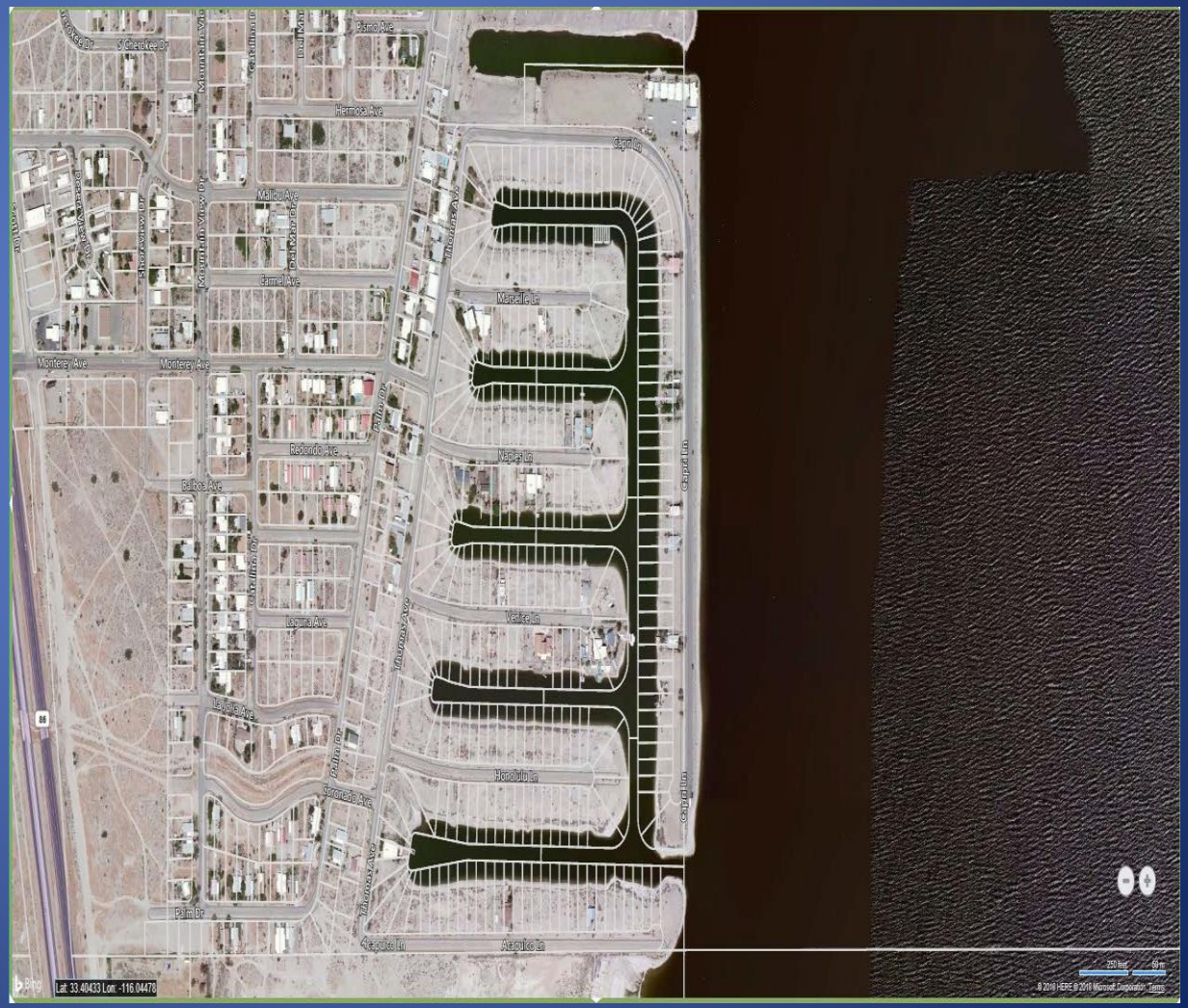
Schedule


SALTON SEA ELEVATION
-233 -234 -235 -236 -237 -238 -239 -240 -241 -242 -243 -244 -245 -246 -247 -248 -249 -250 -251 -252 -253 -254 -255 -256 -257
2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030
SPECIES CONSERVATION HABITAT
Construction (640 ac)
SSMP NEW RIVER WEST
Design/ Build
Construction (1,300 ac)
SSMP FUTURE PHASE
Design/Build
Construction
FINANCIAL ASSISTANCE PROGRAM
Construction

SSMP Plan – projects general location

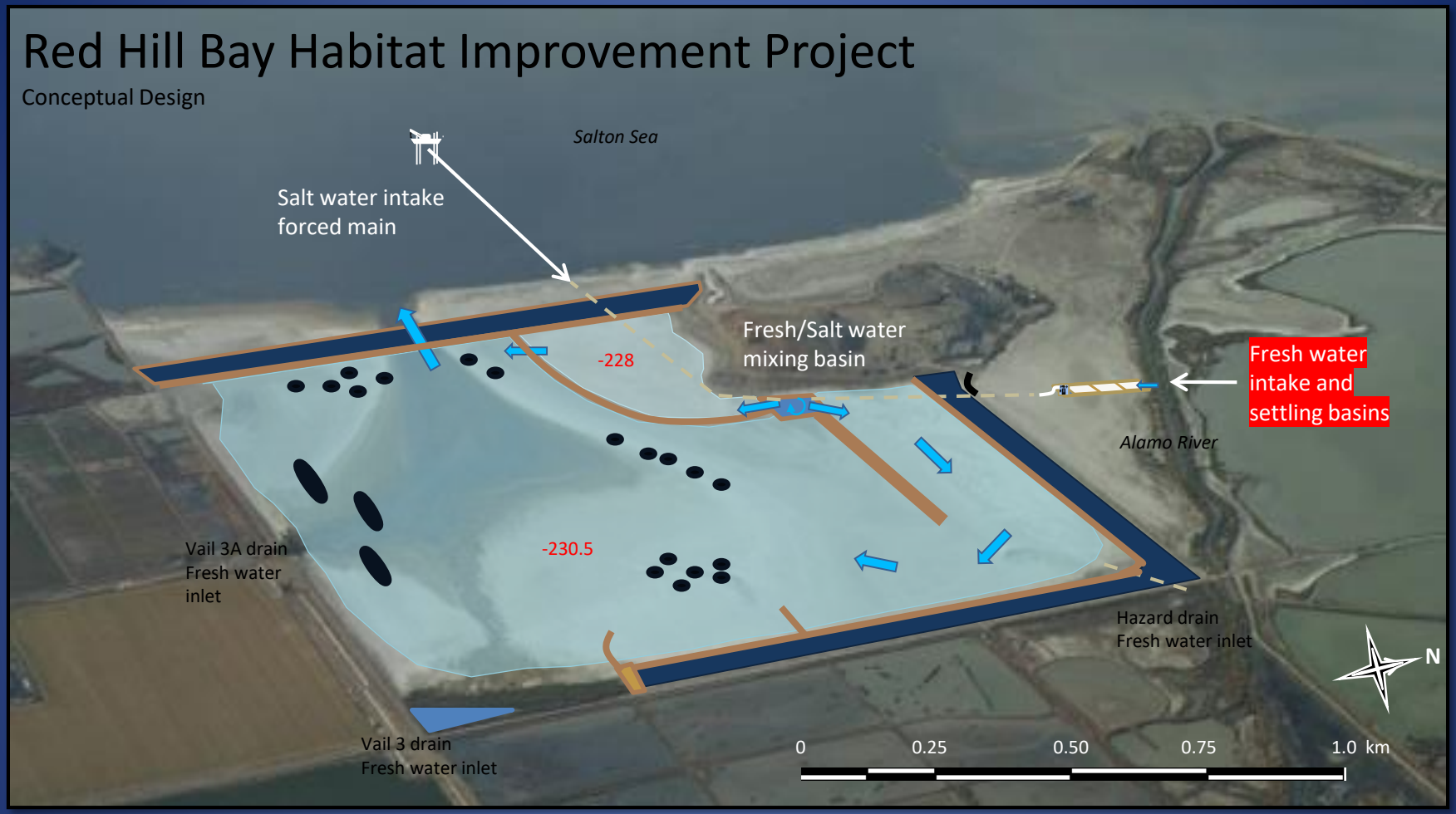
Air Quality and Vector Control

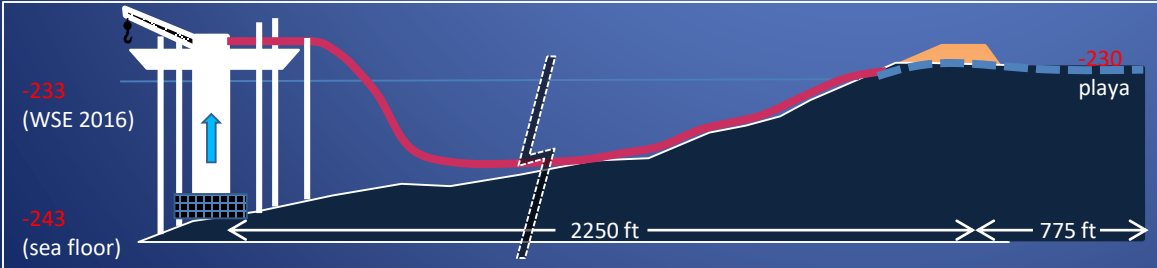
Harbor Project



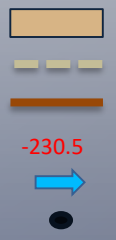
Red Hill Bay Habitat Improvement Project

Conceptual Design





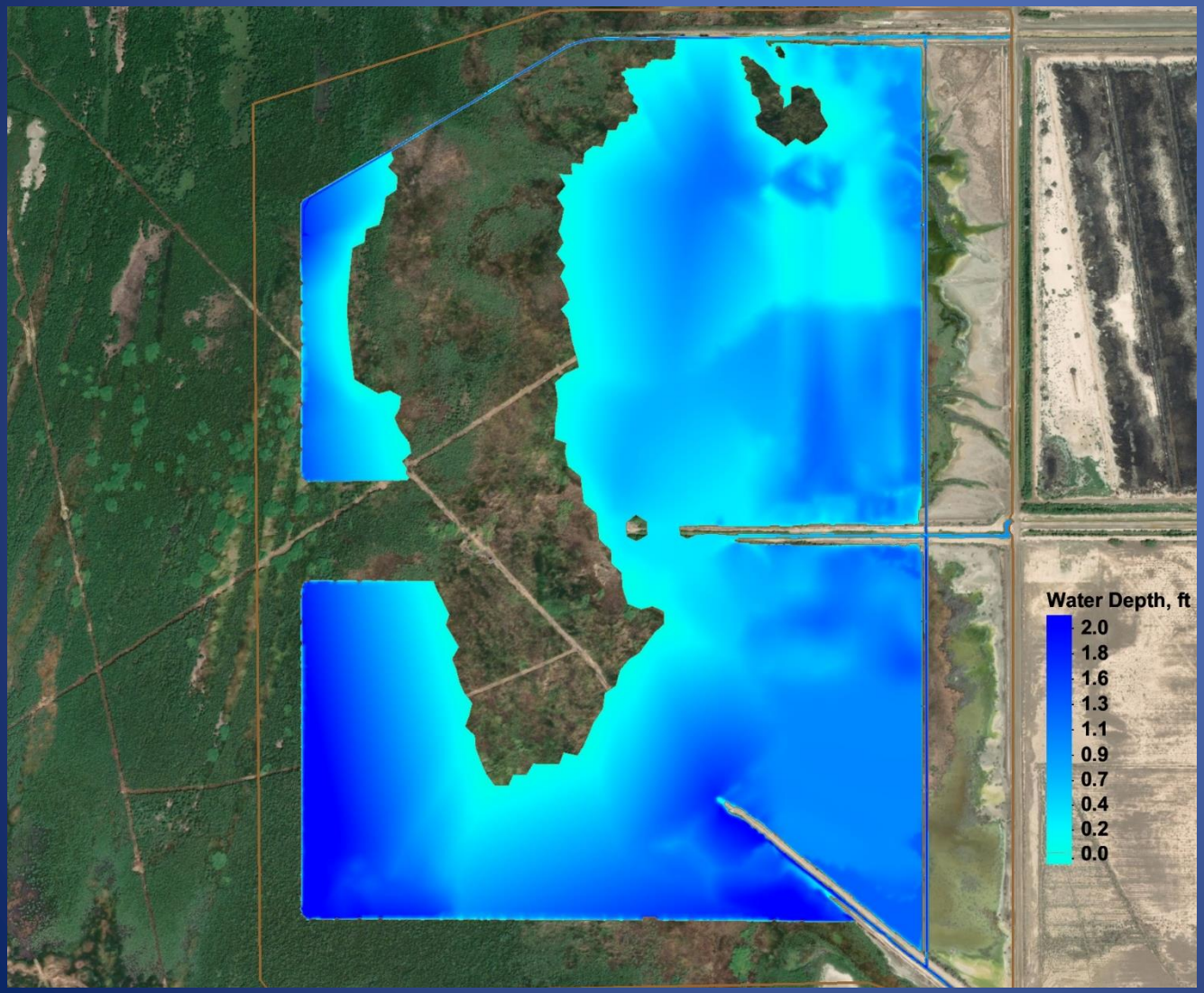
Submersible pump with forced main line delivering Salton Sea water to the mixing basin



Geothemal access
Buried water pipeline
Berms (of various size)
-230.5 Water surface elevation
Water movement
Island

RHB – Settling Basin

Alcott Project



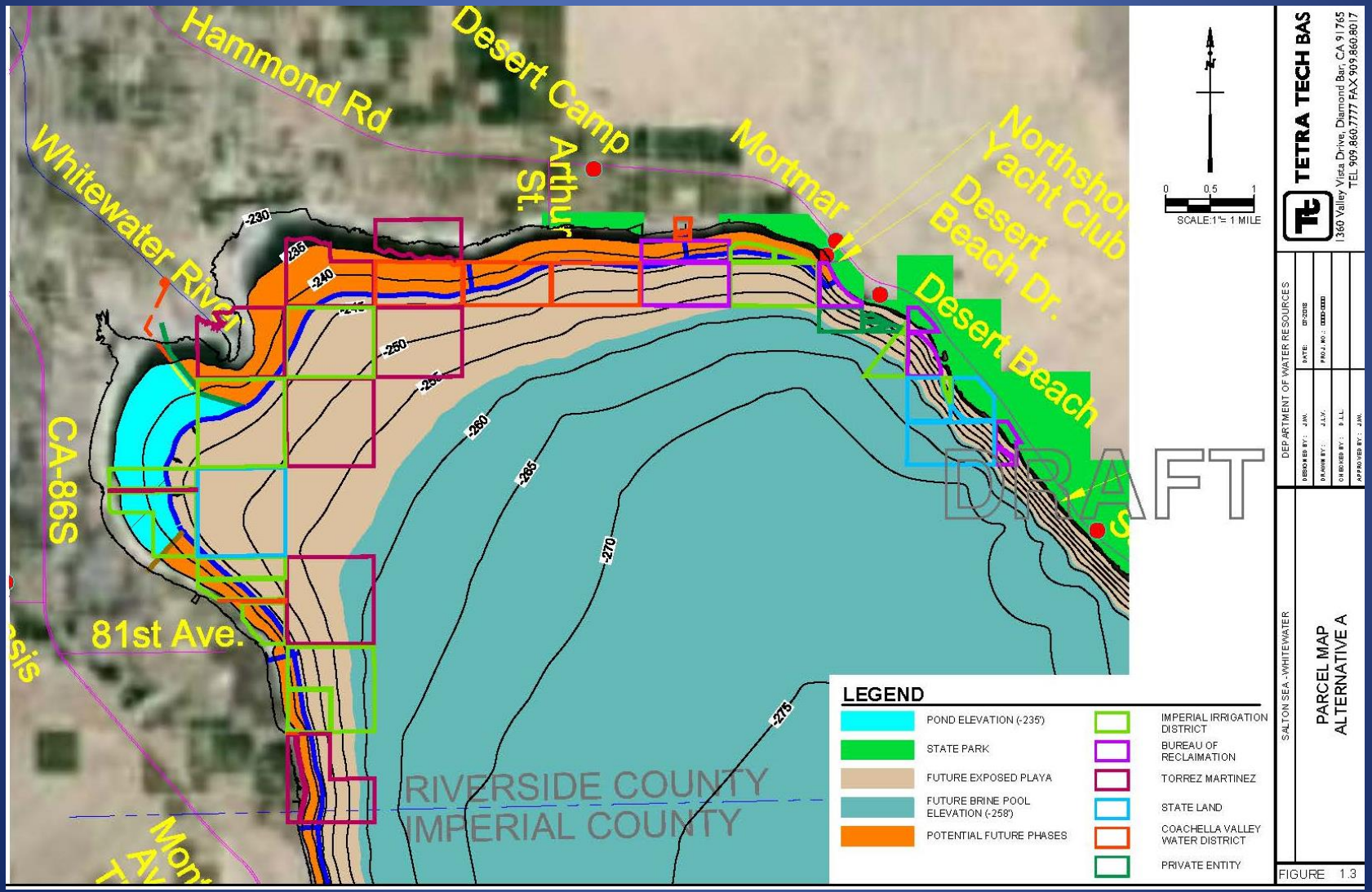
~380 acres of preserved wetland

- Se modeling still needs to be done
- In coordination with IID and CTR

Torres-Martinez Wetland

SCH - Potential Expansion

North Lake Alternatives (5)



Comments and Questions

Other resources

- http://resources.ca.gov/salton-sea/
- LAO Salton Sea Report
- SSMP Phase I: 10-year Plan
- https://water.ca.gov/saltonsea/